

CLAIMS:

1. An imaging apparatus, comprising  
a first linear array of photosensors arranged along an array direction;  
the photosensors exhibiting a repeating pattern along the array direction, the  
repeating pattern including a first photosensor filtered to a first primary color, a  
second photosensor filtered to a second primary color, and a non-primary  
photosensor.
2. The apparatus of claim 1, the repeating pattern further including a third  
photosensor filtered to a third primary color.
3. The apparatus of claim 1, the repeating pattern further including a third  
photosensor filtered to the second primary color.
4. The apparatus of claim 3, wherein the second primary color is green.
5. The apparatus of claim 1, wherein the repeating pattern includes only the  
first photosensor, the second photosensor, and the non-primary photosensor.
6. The apparatus of claim 1, wherein the first primary color is red and the  
second primary color is blue.
7. The apparatus of claim 1, further comprising  
means for moving a substrate relative to the linear array along a process  
direction, and  
wherein the array direction is substantially perpendicular to the process  
direction.

8. The apparatus of claim 1, further comprising  
a second linear array of photosensors, parallel to the first linear array, the  
photosensors of the second linear array exhibiting a repeating pattern along the array  
direction identical to the repeating pattern of the first linear array.

9. The apparatus of claim 8, the pattern in the second linear array being  
offset relative to the pattern in the first linear array.

10. The apparatus of claim 8, further comprising  
a third linear array of photosensors, parallel to the first linear array, the  
photosensors of the third linear array exhibiting a repeating pattern along the array  
direction identical to the repeating pattern of the first linear array.

11. The apparatus of claim 10, the pattern in the third linear array being offset  
relative to the repeating pattern in the second linear array.

12. The apparatus of claim 10, further comprising  
a fourth linear array of photosensors, parallel to the first linear array, the  
photosensors of the fourth linear array exhibiting a repeating pattern along the array  
direction identical to the repeating pattern of the first linear array.

13. The apparatus of claim 12, the pattern in the fourth linear array being  
offset relative to the repeating pattern in the third linear array.

14. The apparatus of claim 1, wherein the non-primary photosensor is clear.
15. The apparatus of claim 1, wherein the non-primary photosensor is filtered orange.
16. The apparatus of claim 1, wherein the non-primary photosensor is filtered blue-green.
17. The apparatus of claim 1, wherein the repeating pattern assigns filtering for six photosensors.
18. The apparatus of claim 17, wherein three of the photosensors in the repeating pattern are filtered green.